AIGC-Empowered Innovative Design of Rattan Weaving in Fashion

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Keywords:

Midjourney;
Rattan weaving craft;
Fashion design;
AIGC;
Traditional culture

ABSTRACT

With the rapid advancement of AIGC, the use of AI software has become an effective means for designers to expand their creative thinking and inspiration. This study employs the Midjourney image generation tool to assist the design process: by constructing prompts, a vast number of design inspiration drafts were generated, and the innovative application of the rattan weaving craft in fashion design was explored, from which an effective set of design schemes was distilled. The findings indicate that AI tools significantly enhance the efficiency of fashion design inspiration generation, providing a highly efficient new paradigm for the modernization and fashion-oriented transformation of traditional craftsmanship.

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DOI.10.64549/jaai-ii.v1i2.121

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Under the strategic context of building a culturally strong nation and the sustainable transformation of the fashion industry, how to revitalize traditional handicrafts such as rattan weaving has become an important issue in the field of fashion design. Rattan weaving is not only a traditional handicraft form in China; some of its techniques are even national-level intangible cultural heritage and an important component of the development of arts and crafts(Ma and Liu, 2025). As a traditional manual craft, rattan weaving shares a natural affinity with the primordial way in which garments are constructed. Applying rattan weaving techniques to garments can not only open up a new direction for this ancient craft, but also align with the development needs of the fashion industry, achieving mutual empowerment between tradition and modernity. Likewise, the application of digital technology in the fashion field has already taken on diverse and in-depth forms. In design, digital design tools are widely used to help designers improve efficiency, complete creative design, draw drafts, and modify and adjust design schemes(Wang and Liu, 2025). Design, as a creative activity, will be profoundly transformed in its traditional modes of creation and design thinking through its integration with artificial intelligence technology(Dong and Wang, 2024). This paper draws on the Midjourney image generation tool to explore in depth the innovative application of rattan weaving in fashion design, with a view to deriving a concrete and feasible practical framework.

1.Core Concepts and Tool Foundations

A sound understanding of the concept of the rattan weaving craft and a horizontal comparison of AI tools enable designers to grasp the characteristics of rattan-based design themes at the early stage of design and to make targeted tool selections according to the advantages of each design tool.

1.1 Rattan Weaving Craft

Rattan canes naturally bear grain, and through weaving they can be shaped into a wide variety of forms; this formal beauty is both natural and highly evocative(Li, 2022). Rattan weaving is a common traditional manual craft in which natural materials serve as the structural core and various patterns are created through different weaving methods. Chinese traditional rattan weaving has given rise to many distinct schools according to regional divisions, the most representative of which include Huaiyuan rattan weaving in Sichuan, Hanzhong rattan weaving in Shaanxi, Nanhai rattan weaving in Guangdong, Tengchong rattan weaving in Yunnan, and Li ethnic rattan weaving in Hainan. As Table 1 shows, rattan weaving has developed quite differently across regions, yet each school has its own distinctive features. The rattan weaving craft is highly cultural and artistic in nature; however, as times have evolved, this ancient craft with a history of more than two thousand years has fallen somewhat out of step with the demands of contemporary development, requiring designers to further innovate in its application(Chen, 2025). This paper does not discuss any particular type of rattan weaving in detail, but considers only the integration of rattan weaving as a mode of expression with fashion design.

Tab. 1 Common classifications of rattan weaving across various regions

Region	Main product categories	Representative materials	Core weaving techniques
Sichuan (Qionglai rattan weaving)	Furniture, utensils, decorative crafts	Green rattan, Indonesian rattan, agate rattan	Foundation: round base, openwork round base, flat base, polygonal base; Weaving: openwork weaving, braid weaving, wrapping; Finishing: edge locking, edge binding
Shaanxi (Hanzhong rattan weaving)	Furniture, production tools, decorative utensils, household articles	Green rattan, wood and bamboo, Indonesian rattan	Foundation: round base, grid base, multi-corner base; Weaving: lift-and-cover method, twist weaving, wrap-and-cover method, loose-and-fine combined weaving, three-dimensional weaving, dip-dyed weaving, openwork weaving; Finishing: edge-locking tie
Guangdong	Furniture, baskets,	Hainan rattan, green	Foundation: round base, square base, oval base;

Region	Main product categories	Representative materials	Core weaving techniques
(Nanhai rattan weaving)	crafts, mats	rattan, rattan core, rattan skin	Weaving: cross weaving, herringbone weaving, chrysanthemum-base weaving, lift-and-press method, twist-cord weaving; Finishing: rolled edge, wrapped edge, edge locking
Yunnan (Tengchong rattan weaving)	Furniture, daily necessities, crafts	Jiguang rattan, Shuiguang rattan, agate rattan, stone bamboo	Foundation: round base, grid base, multi-corner base; Weaving: lift-and-cover method, wrap-and-cover method; Finishing: rope insertion, coiled finishing, covering finish

1.2 Overview of AI Image Generation Software

Currently, the field of image generation tools has developed into a diverse technological ecosystem. Different platforms show notable divergence in functional positioning and technical characteristics: Midjourney, by virtue of its outstanding artistic expressiveness and mature creative community, holds an advantageous position in the field of conceptual creative design; DALL-E 3, relying on its powerful language comprehension, excels at the precise execution of instructions; and Stable Diffusion, as an open-source technology platform, offers users flexible personalization and parameter adjustment space. At the same time, domestic technology platforms are also demonstrating strong momentum. Among them, Kling has shown formidable capability in the generation quality of both image and video content, while Wenxin Yige, by virtue of its deep understanding of Chinese semantics, has developed a distinctive advantage in generating content with traditional aesthetic characteristics. These tools each have their own strengths in stylization, control precision, operational logic, and licensing and open-source availability, together forming a multi-layered technical architecture that provides a rich variety of tool options for design practice in different scenarios.

Tab. 2 Comparison of mainstream AI image generation software

	Midjourney	DALL-E 3	Stable Diffusion	Adobe Firefly	Kling	Wenxin Yige
Technical positioning	Art-oriented exploratory generation	Precise reproduction of complex instructions	Highly customized open-source architecture	Commercially safe ecosystem integration	Emerging platform for multimodal generation	Deep understanding of Chinese context and cultural elements
Generation style tendency	High artistry, strong atmosphere, cinematic quality	Balanced realistic and cartoon styles, strong commercial appeal	Depends on the selected model; extremely wide style spectrum	Neutral and practical, adapted to design workflows	Modern and bright, combining realism and aesthetics	Notable guofeng (Chinese-style) and ink-wash features; comprehensive styles
Core advantages	Excellent image aesthetic quality and active community	Top-tier natural language understanding and logical consistency	Unmatched local control and generation freedom	Seamless integration with professional design software and clear copyright	Equal emphasis on dynamic video generation and static image quality	Best generation performance for Chinese prompts and traditional Chinese cultural elements

	Midjourney	DALL-E 3	Stable Diffusion	Adobe Firefly	Kling	Wenxin Yige
Main limitations	Relatively weak detail control; relies on Discord interaction	Limited creative styles; few customizable parameters	High technical threshold and hardware requirements; steep learning curve	Relatively weak creative divergence; limited style options	As an emerging platform, functions and ecosystem still under development	Generation of complex logic and international cultural scenarios needs improvement
Control precision	Medium	Relatively high	Extremely high (requires auxiliary plugins)	Medium (good at local editing)	Medium-high	Medium
Ease of use	Medium (requires learning commands and parameters)	Low (natural-language interaction, intuitive and easy to understand)	High (requires technical background for environment configuration)	Low (especially user-friendly for Adobe users)	Medium-low (simple interface, friendly interaction)	Low (Chinese interface with prompt assistance)

1.3 Feasibility Analysis of Midjourney Empowering Rattan Weaving Innovation

Midjourney is an AIGC model tool centered on digitally generated painting. Through structured prompt descriptions, it can automatically generate graphic elements of various forms, colors, and effects, and can simulate interactive responses in different scenarios, thereby significantly enhancing the expressiveness and innovativeness of dynamic graphics(Xie et al., 2025). Through parametric control over a wide range of artistic styles and effects, Midjourney can readily match the freehand(xieyi) or meticulous(gongbi) brushwork styles expressed in traditional culture; moreover, through the Discord community it has accumulated data from hundreds of millions of users, forming a continuous update loop from user feedback to model optimization(Zhang, 2023). Midjourney is not difficult to operate, and its stylistic tendencies offer a natural advantage for creativity-oriented design such as fashion design. In terms of style adaptation, the Midjourney 6.1 model can already generate nearly a hundred artistic styles according to user instructions, including cyberpunk, dotted brushwork, minimalism, Pixar, and futurism(Ding, 2025). In the traditional fashion design process, exploring a new direction at the initial stage often entails a long process of material collection, sketch drawing, and toile prototyping, which is costly and time-consuming. In contrast, Midjourney can generate multiple solutions within seconds, achieving a "zero-cost trial-and-error" breakthrough; this capability reconstructs the traditional design innovation model and brings about a revolutionary breakthrough in design thinking(Dai, 2025). This massive, rapid, and low-cost capacity for idea generation greatly broadens the designer’s thinking space, allowing designers to iterate and screen virtual solutions quickly and to devote more energy to the optimization and realization of their schemes. Midjourney also possesses a powerful capability for constructing scenes, lighting, and models required for garment presentation, as well as for creating atmosphere. In sum, Midjourney is highly compatible with the design needs of this study and can provide it with strong technical support.

2.Design Workflow Based on Midjourney

Midjourney is not open-source software but operates on the Discord platform. Operations of the Midjourney Bot on the platform are implemented through a series of commands beginning with a slash "/", forming a complete interactive system. These commands can be classified into three categories: image generation commands, image optimization and iteration commands, and parameter adjustment commands. Understanding and mastering these commands is the foundation of design research.

2.1 Core Image Generation Commands

1) /imagine. The Imagine command is the most core "text-to-image" command tool. By entering a "prompt" after it, users can precisely describe the visual elements, style, composition, and other aspects of the image they expect to generate. The vast majority of the rattan weaving garment concept images in this study were generated through this command.

2) /blend. The Blend function allows users to upload 2 to 5 images; the model automatically analyzes and fuses the main visual features of these images to generate a new composite image. This function is mainly applied to style fusion.

3) /describe. The Describe function allows users to submit an image, analyzes the image, and generates four possible prompt texts. When an image that meets expectations is encountered in the research, this command can be used to parse the compositional logic of the image, thereby optimizing the prompts used in the study; it is particularly suitable for learning complex style descriptions.

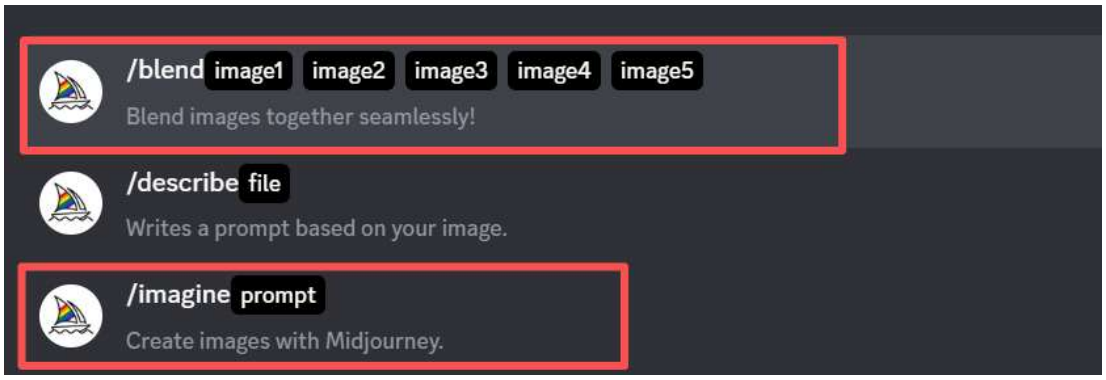


Figure 1 Image command instructions

2.2 Image Optimization and Iteration Commands

1) /vary. This command usually appears in the form of an icon rather than a directly entered command. Vary (Strong) / Vary (Subtle): provide new versions of a generated image to different degrees. Strong produces bolder creative deviations, while Subtle makes fine adjustments while retaining the core composition and style of the original image. These options can be used for preliminary exploration of images with potential, enabling in-depth study of specific areas around them.

2) /reroll. This function re-executes the /imagine prompt or is triggered by clicking an icon. Owing to the randomness of AI, each generation produces different solutions. When a certain prompt proves effective, this function can be used to expand the number of samples in the same direction in batches, ensuring the richness of the research samples.

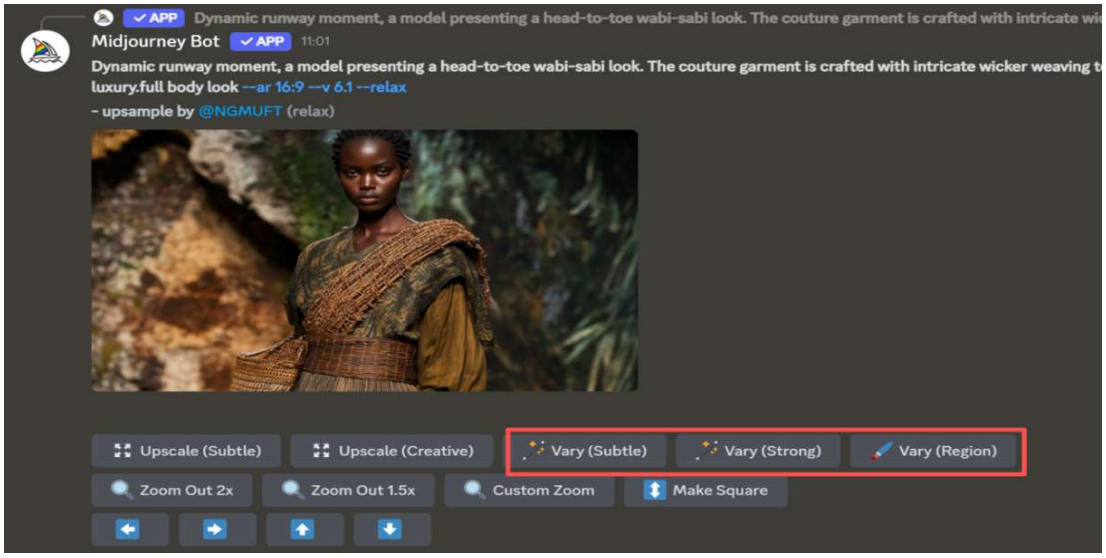


Figure 2 Image optimization instructions

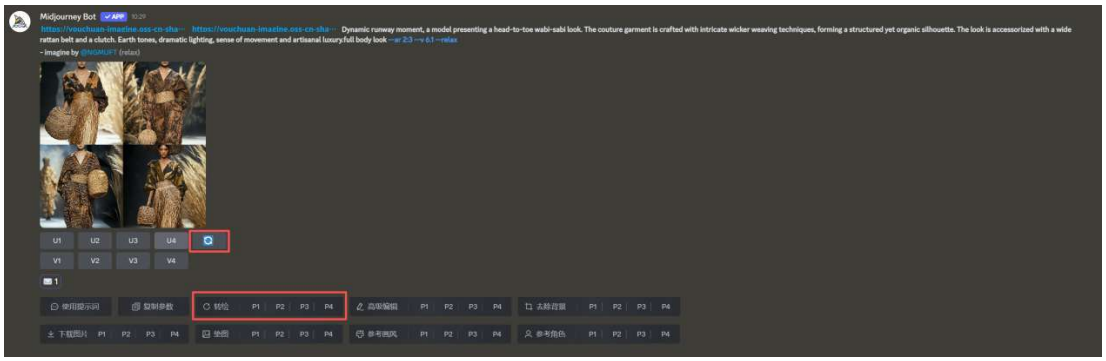


Figure 3 Iterative instructions

2.3 Core Standard Parameter Commands

These commands are mostly implemented in the "--parameter" format, with parameters appended after the prompt to control the generated data.

1) Aspect ratio control parameters. --ar <value>: sets the aspect ratio of the image, e.g., --ar 16:9 (cinematic), --ar 1:1 (square), --ar 2:3 (portrait photography). This study mainly applies 2:3, which better displays the full garment. --no: excludes unwanted elements. In this study, elements that do not conform to the texture of rattan weaving, such as plastic-like and glossy sheen effects, were excluded.

2) Model style parameters. --v <version> or --niji <mode>: uses the specified algorithm model. --v 6.1 is the specified algorithm model, which has strong capabilities in detail and prompt following, while --niji 6 is for anime style. Since this study pursues realism and detail, --v 6.1 was used consistently.

3) Output and process parameters. --seed <value>: seed value. The seed value is a unique set of numbers for each generated image; using a seed value in the prompt can generate images with high similarity. This function constitutes a key step in the study: once content that partially meets the requirements has been obtained, controlled-variable experiments can be conducted. --chaos <0-100>: controls the divergence of the initial grid results. The higher the value, the greater the divergence among the four images in the grid; in the early stage of experiments, the value is raised to broaden the exploration; the lower the value, the more convergent the images, and after certain conclusions are reached, the value is lowered to obtain consistent results.



Figure 4 Version selection

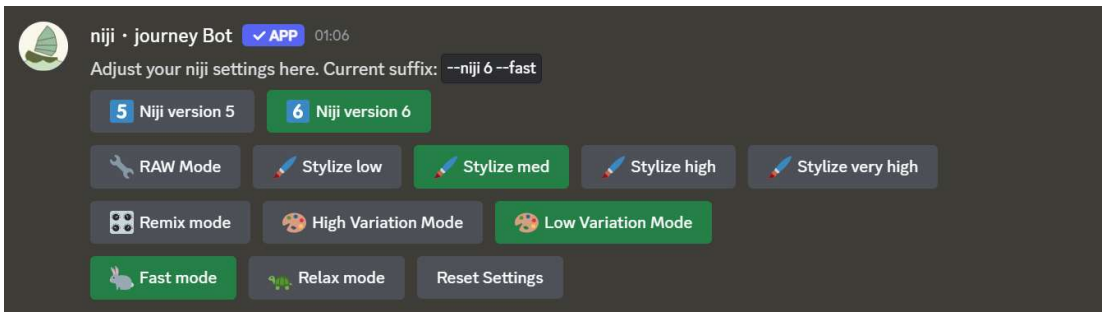


Figure 5 niji mode

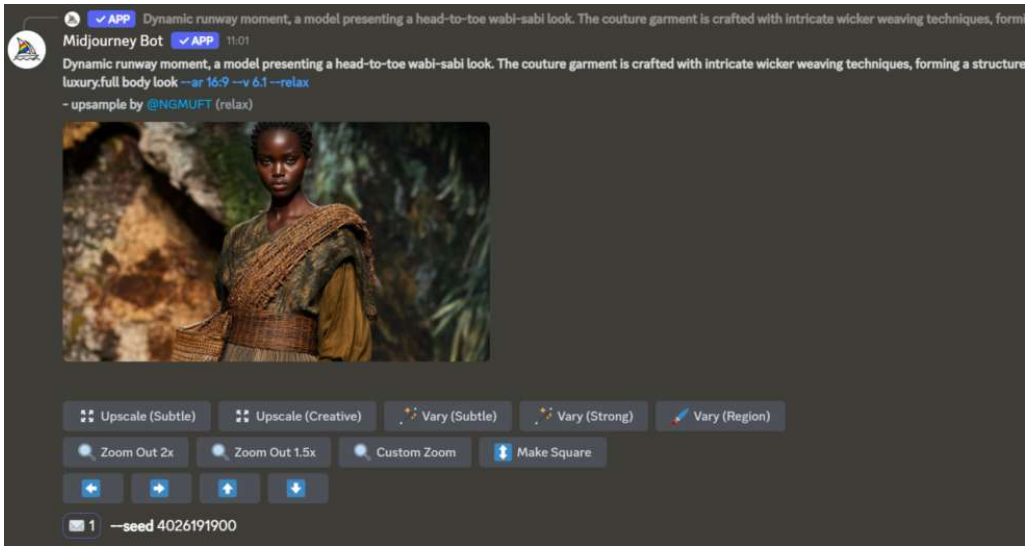


Figure 6 Seed value

2.4 Summary

In summary, prompts are first generated based on the /describe function, images are generated with the /imagine and /blend tools, and parameters are adjusted with tools such as /vary and /reroll, together constituting a systematic design methodology based on Midjourney.

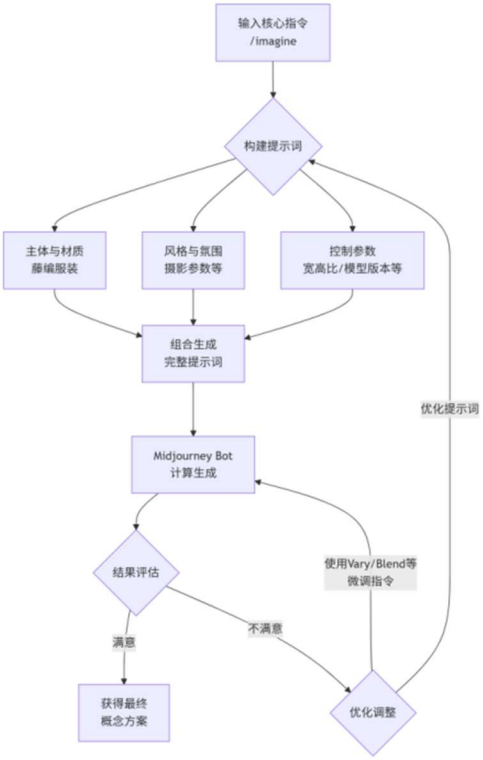


Figure 7 Midjourney technology roadmap

3.Design Scheme

After mastering the basic knowledge of the rattan weaving craft and the operation of the Midjourney interface, the study enters the core stage of prompt construction. By composing prompts in groups to obtain a vast number of concept images, then classifying and extracting keywords to form a visual brainstorm of images, a complete design scheme is finally derived. The construction of a high-quality prompt comprises

nine core elements: topic introduction, specific requirements, design style, detailed features, reference images, intended use, application scenarios, parameter requirements, and technical constraints. When writing, the principle that "the beginning and the end matter most" should be followed, placing the most critical content at the beginning and the end; moreover, the more specific and detailed the description, the better the AI can generate design images that meet expectations(Hu et al., 2025) .

3.1 Prompt Composition

Writing a prompt requires a complete contextual passage. To avoid the homogenization of generated results and to explore the application of rattan weaving in fashion design from multiple angles, this study constructs prompts from three perspectives: "accessory application," "material coordination," and "conceptual garments," corresponding respectively to texture patterns, material innovation, and storytelling in design.

3.2 Modular Accessories

"Prompt: A statement necklace made of intricately coiled and woven rattan, accented with semi-precious stones, organic texture, artisanal craftsmanship, high-fashion accessory, studio lighting, clean background, product photography --ar 2:3 --v 6.1"

This group of prompts focuses on the decorative function of rattan weaving in garments. By generating independent accessories such as rattan necklaces, bags, and waist cinchers, it explores the visual focal points and artistic value that rattan, as an independent material, can create in specific areas. Emphasizing the refined presentation of weaving techniques, it provides a rich modular styling system for the overall design.



Figure 8 Rattan accessories

3.3 Rattan Woven Garments

"Prompt: An architectural bustier top constructed entirely from interwoven rattan strips, mimicking the human rib cage, structural fashion, minimalist design, natural beige color, displayed on a dress form, side lighting creating dramatic shadows --ar 3:4 --style raw --v 6.1"

This group of prompts explores the structural transformation of rattan weaving from decoration to garment, treating it as the "yarn" of clothing. It guides the AI to consider how rattan can serve as a primary fabric or a supporting framework to form core garments such as bustiers and long dresses. This group of designs focuses on breaking through the boundaries of traditional fabrics, emphasizing the plasticity of rattan, its spatial relationship with the body, and its potential as a load-bearing structure in its own right.





Figure 9 Rattan woven garments

3.4 Overall Atmosphere Creation

"Prompt: A full-body shot of a model wearing a flowing gown with delicate rattan shoulder pieces, standing in a misty bamboo forest, cinematic atmosphere, ethereal lighting, soft focus, the image evokes a sense of serene harmony between nature and craftsmanship, Japanese wabi-sabi aesthetic --ar 16:9 --v 6.0"

This group of prompts focuses on the "narrativity" of brand design and the creation of background stories. By constructing prompts that include model movement, specific scenes, and lighting atmosphere, the generated images are imbued with emotional tension. This design scheme emphasizes the coordination within a specific cultural context and aesthetic system, integrating discrete design elements into a unified and communicable visual story.



Figure 10 Rattan weaving runway looks

4.Conclusion

In retrospect, this paper is grounded in the era of cultural inheritance and technological innovation, focusing on the core issue of the innovative application of the traditional rattan weaving craft in modern fashion design. By introducing AIGC tools, especially the Midjourney image generation tool, it constructs a digital design research methodology of "traditional craft–Midjourney image generation–scheme formation," providing a new paradigm for research on the modern transformation design of traditional handicrafts. Through an analysis of the various functions of Midjourney software and multi-level progressive operational

inputs, the study confirms that AIGC can efficiently and accurately stimulate designers' inspiration and generate a large number of design schemes that are both innovative and feasible, which, to a certain extent, bridges the gap between traditional crafts and contemporary aesthetics and market demands.

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